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Ali A. Salim^{*} (almukdadi12@yahoo.com), The Netherlande, Zuid holland, Hofstraweg 420, 2171 NW Sassenheim, 2171 NW, Netherlands. *Evaluation of general elliptic integrals by elementary functions.*

Its known that there is no evaluation of elliptic integrals in terms of elementary functions. The current evaluation is either by numerical analysis or in terms of standard elliptic functions, which are also unsolved elliptic integrals of 1st, 2nd and 3d kind. Now, by use of a certain analytical techniques, we can evaluate the general forms of elliptic integrals which are involve a cubic or a quartic rational function in one variable under square root. Moreover, there are many significant integrals involving square roots of two different quadratic polynomials multiplied or devided, can also be solved in terms of elementary functions without transform to standard elliptic kinds. This achievement will be very useful in studying the elliptic functions, facilitating the engineering and physical analysis, solution of differential equations, etc... (Received June 10, 2010)